

REMARKS/ARGUMENTS

Claims 1-17 have been previously cancelled. Claims 18-40 are currently pending in this application and are at issue herein.

§ 103 Claim Rejections

Claims 18-40 stand rejected under 35 U.S.C. § 103(a) as being obvious over International Publication No. WO 01/06740 to Duffy et al. ("Duffy") in view of U.S. Patent No. 7,012,888 to Schoeneberger et al. ("Schoeneberger"). Applicants respectfully traverse the claims rejections for at least the following reasons.

Burden Of Proving Obviousness Under § 103

"All words in a claim must be considered in judging the patentability of that claim against the prior art." MPEP § 2143.03 (*emphasis added*). "When evaluating claims for obviousness under 35 U.S.C. 103, **all the limitations of the claims must be considered and given weight.**" MPEP § 2143.03 (*emphasis added*). "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." Id. "A 35 U.S.C. 103 rejection is based on 35 U.S.C. 102(a), 102(b), 102(e), etc. depending on the type of prior art reference used and its publication or issue date." MPEP § 2141.01.

To establish a *prima facie* case of obviousness, an Examiner must show that an invention would have been obvious to a person of ordinary skill in the art at the time of the invention. MPEP § 2141. "Obviousness is a question of law based on underlying factual inquiries." Id. The factual inquiries enunciated by the Court include "ascertaining the differences between the

claimed invention and the prior art" and "resolving the level of ordinary skill in the pertinent art."
MPEP § 2141.

"A statement that modifications of the prior art to meet the claimed invention would have been 'well within the ordinary skill of the art' at the time the claimed invention was made' because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references." MPEP § 2143.01. "[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, **there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.**" KSR International Co. v. Teleflex Inc., 550 U.S.398, 419, 82 USPQ2d, 1385, 1396) (*citing In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006) (*emphasis added*)); MPEP § 2143.01.

For instance, an invention that permits the omission of necessary features and a retention of their function is an indicia of nonobviousness. In re Edge, 359 F.2d 896, 149 USPQ 556 (CCPA 1966); MPEP § 2144.04. A conclusory statement to the contrary is insufficient to rebut such an indicia of nonobviousness. *See* MPEP § 2143.01.

Moreover, "[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." MPEP § 2143.01. Also, "the proposed modification cannot render the prior art unsatisfactory for its intended purpose." MPEP § 2143.01.

Claims 18-40 Are Not Rendered Obvious Over Duffy in view of Schoeneberger

The present invention is directed toward an adapter unit and method for handling a central office line, or an exchange line, of a public telecommunications network at a telecommunication system. The telecommunication system is used for operating a private telecommunications network, *e.g.*, a company telephone network. The telecommunication system is used for switching connections between the terminals of the private telecommunications network or for switching connections to or from a public telecommunications network, or telephone network. Through the inventive adapter unit and method, an exchange line leading to a branch office can be connected to a remote central telecommunication system with minimal switching effort and, in particular, without the need for a local telecommunication system in the branch office. In spite of this, the inventive adapter unit and method allows utilization of the same advantages which are normally only available by using a local telecommunication system in the branch office. As noted in the previous section, this is an indicia of nonobviousness. *See In re Edge*, 359 F.2d 896, 149 USPQ 556 (CCPA 1966); MPEP § 2144.04.

The adapter unit and method of the present invention ensures that terminals in the branch office are at least conditionally ready for use in spite of a crash of the central telecommunication system or a crash of the data packet carrier network. Therefore, the inventive adapter unit and method provides for a normal mode of operation and an emergency mode of operation should a crash occur.

In the normal mode of operation, the objective is control of the branch office terminals by the central communication network. To achieve this, the received signaling data from the local public network is not directly provided to the designated receiver at the branch office terminal, but is initially first transmitted to the central communication network. Transmitting of the signaling data is handled by "tunneling" the data packets through a data transmitting network which connects the central telecommunication system with the branch office. Tunneling allows the private signaling data to be transmitted as data packets over the public network while keeping the data relatively secure.

The signaling data is, thereafter, arranged in the central telecommunication system and, as a result of the arrangement, the signaling data is transmitted back through the adapter unit to the public telecommunication network or to the branch office terminals. Thus, the inventive adapter unit and method works, in the normal mode, as a relay between the public telecommunication network and the central telecommunication system. As set forth in independent claim 18, the relay feature of the inventive adapter unit is realized as follows:

1. A channel send-receive unit that sends signaling data to an exchange of a circuit-switched telecommunications network (*i.e.*, public telecommunication network) and receives signaling data from the exchange.
2. A data insertion-extraction unit that inserts, in the normal mode, signaling data into data packets and forwards the packets to the data packet send unit, and then also extracts signaling data from a data packet received by the data packet receive unit and forwards the extracted signaling data to the channel send unit.

3. A data packet send-receive unit that, in a normal mode, sends and receives data packets to and from a first telecommunication system (*i.e.*, central telecommunication system) via a data packet transfer network.
4. An operating mode switchover unit that switches over from the normal operating mode to an emergency operating mode if a fault occurs on the side of the data packet transfer network to ensure telecommunication via the circuit-switched telecommunications network (public telecommunication network).

In other words, in the emergency operation mode due to a crash of the packet oriented communication with the telecommunication system (either through a crash of the telecommunication system or through the loss of the network communication), the above-mentioned functions of elements 2 and 3 above are not used. Thus, the relay function of the inventive adapter and method to the central telecommunication system controlled in the normal mode is not utilized. In the emergency operating mode, the signaling data is forwarded by the operating mode switchover unit to a second telecommunication system which is different from the first telecommunication system used in the normal operating mode, and signaling data received from the second telecommunication system is sent to the exchange via the channel send unit.

The function of the inventive adapter unit and method is to avoid any disconnection of the signaling data. Signaling data is used for building and maintenance and controlling of the communication connection essential data, and is different from user data (*e.g.*, "payload" or language data) of the communication connection. Through the present invention, instruments are provided to realize a cost-efficient emergency operation during a breakdown of the

telecommunication connection at the central telecommunication system or during a breakdown of the network located between the central telecommunication system and the branch office.

Duffy essentially discloses an affiliate system which can be used in a branch office.

Admittedly, Duffy and the present invention share some common elements, including the placing of a telephone call over a WAN IP network or the PSTN. But the similarity ends at this abstract level of disclosure, as Duffy does not disclose the various units recited in independent claim 18 or the various method steps recited in independent claims 28 and 38.

The method recited in Duffy of resolution does not address the transmission of the signaling data in the sense of the relaying the signaling data, in accordance with the present invention, to a central communication network. To the contrary, the local affiliate system (Gateway Network 30) in Duffy disposes of mediums (namely, Telephony Cards in a designated Gateway Server 31), which directly works with a connected interconnect switching telecommunication network (PSTN) and, in this way (*see Duffy*, page. 9, lines 8-10), captures the full functionality of the telecommunication construction, and especially the connection achievement (*i.e.*, routing). Contrary to a transmission of signaling data according to the present invention of a branch office adapter unit to a central communication system, the Duffy system is silent with respect to the development of the signaling data. The local enforcement of a connection in the Duffy system teaches one skilled in the art away from the solution of delegation of the signaling data enforcement in accordance with the present invention.

With respect to claims 18 and 28-29 (of which, claims 18 and 28 are independent), the Office Action cites page 3, lines 1-18 and Fig. 1 of Duffy as allegedly illustrating the claimed channel send-receive unit and data packet send-receive unit. However, this recitation of Duffy

merely outlines certain objectives of the Duffy system relating to the routing of calls. The cited passage of Duffy includes no mention of signaling data, but instead discusses generally the gateway that connects the WAN IP network and the PSTN. This passage of Duffy is devoid of any suggestion of a channel send-receive unit sending data to an exchange and receiving signaling data from the exchange, or of a data packet send-receive unit sending and receiving data packets to/from a communication system via a data packet transfer network, as recited in claim 18. The Office Action fails to identify where these units are shown in Duffy, but merely broadly refers to Fig. 1 of Duffy. Fig. 1 shows three gateway networks, a WAN IP network and a PSTN. There is no indication of how Duffy describes the recited units or their functionality.

The Office Action cites page 10, lines 1-6 of Duffy as allegedly disclosing the claimed data insertion-extraction unit. However, this cited passage of Duffy includes no disclosure of any type of data insertion-extraction unit or the functionality of inserting and extracting signaling data into data packets. This recitation of Duffy merely discloses that a VoIP driver consists of hardware and software that handles a conversion between voice data in the format required for the station/trunk driver telephony interface and the IP packet format required by the WAN IP network. The VoIP driver converts voice data into different formats. In stark contrast, the claimed data insertion-extraction unit inserts the signaling data received by the channel send-receive unit into a data packet and forwards the packet to the data packet send unit, and also extracts signaling data from a data packet received by the data packet receive unit and forwards the extracted signaling data to the channel send unit. Nothing in the cited passage of Duffy suggests any type of insertion or extraction of signaling data, and the Office Action does not point to where such insertion and extraction can be found in this passage of Duffy.

The Office Action cites page 3, lines 12-18 of Duffy as allegedly disclosing the claimed operating mode switchover unit. Again, this recitation of Duffy merely recites an abstract object of the invention. Although the Duffy reference relates in general to rerouting a call from the WAN IP network to the PSTN if the quality of the call falls below predetermined quality level, Duffy is silent with respect to the processing of the signaling data during this switchover. For example, Duffy is devoid of the limitation in claim 18 that: "wherein the signaling data is not processed by the adapter unit during the normal operating mode." While the Office Action cites Figs. 8A and 8B of Duffy as allegedly disclosing this element, Applicants are unclear as to how these figures can disclose such a limitation when there is no indication of any adapter unit in Duffy. Furthermore, the interpretation of Figs. 8A and 8B of Duffy set forth in the Office Action is incorrect.

In the "Brief Description of the Drawings" section of Duffy, Figs. 8A and 8B are described as follows:

FIG. 8A is a schematic diagram showing call routing for a telephone call made between one IP telephone and another IP telephone, with the two telephones in different locales according to an embodiment of the present invention;

FIG. 8B is a schematic diagram showing call setup sequence for a telephone call made from one IP telephone to another IP telephone along the route shown in FIG. 8A;

Duffy, page 7, lines 2-7.

The description of Figs. 8A and 8B in Duffy can be found at page 19, line 22 to page 20, line 14. Fig. 8A shows a call routing between two IP telephones (141 and 241) at different locales, where the call is routed through the IP network 101. Fig. 8B of Duffy illustrates the call

setup sequence for the call shown in Fig. 8A, namely, how the various call setup requests are handled and how checks are performed in order to establish the call shown in Fig. 8A. There is no distinction between different modes of operation between Figs. 8A and 8B of Duffy. Fig. 8B simply shows the call setup sequence for the call shown in Fig. 8A. Thus, the Office Action has misinterpreted the Duffy reference with respect to Figs. 8A and 8B.

Additionally, the Office Action states that "the telephone cards within the gateway(s) are not needed to be utilized unless the call is switched over from IP network to the PSTN". Office Action, page 3, lines 4-6. Applicants are unclear if the Office Action is equating the telephone cards with the inventor adapter unit. If so, the Office Action does not point out where the various recited units that make up the claimed adapter unit are found in the Duffy telephone cards.

The Office Action then admits that Duffy is silent with respect to "communications of the signaling data or messages", and cites Schoeneberger (column 1, line 60 to column 2, line 9 and column 2, lines 31-56) as allegedly teaching utilizing signaling data messages between network endpoints for call restoration during network failure. Office Action, page 3, lines 7-13.

However, these passages of Schoeneberger teach that a plurality of gateways are configured between a PSTN and a hub of the system, and a proxy table and a restoration table are provided in each of the gateways. A call is divided into a session initiated protocol ("SIP") portion, which is sent to a proxy server, and a real time protocol ("RTP") portion, which is sent to a media server. The gateway of Schoeneberger sends a call to the proxy server and/or call restoration data table in each of the gateways, and the call restoration data table is provided data to restore a lost call. There is no identification in Schoeneberger of how either the SIP or RTP portions of a

call constitute signaling data, as alleged in the Office Action. Further, the Office Action points to no motivation to combine the references.

For instance, since Duffy is not concerned with signaling data, there can be no motivation to combine a reference that teaches the use of signaling data with Duffy. Additionally, Applicants are unclear how the Duffy system would work with the incorporation of signaling data. The Office Action is silent in this regard, and only broadly states that it would have been obvious to incorporate the teachings of Schoeneberger with Duffy in order to maintain call connection in the event of network failures. Office Action, page 3, lines 14-16. However, the Office Action does not indicate how the teachings of Schoeneberger are to be incorporated into Duffy. This is important as Duffy already reroutes calls if signal degradation occurs, but in a different manner than the present invention. It may very well be that the Duffy invention would be rendered inoperable by the incorporation of signaling data therein. In fact, the local enforcement of a connection in the Duffy system teaches one skilled in the art away from the solution of delegation of the signaling data enforcement in accordance with the present invention, and is an indicia that the Duffy system may very well not operate with the inclusion of signaling data. It is well settled that if a proposed modification renders the invention being modified unworkable for its intended purpose, then there is no suggestion to make the proposed modification. *See In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984); MPEP § 2143.01.

Further, in rejecting the claims, the Examiner has combined isolated teaching from the references without identifying the requisite suggestion in these references, or the incentive for, making this combination. Further still, how the proposed combination is to be implemented is

not disclosed at all in the Office Action. It is improper to reject an applicant's claims by a piecemeal approach, wherein disjointed items comprising separate pieces of an applicant's claimed combination are ferreted out from the prior art and juxtaposed or conflated for the sole purpose of rejecting the claims under § 103, under which the invention as a whole must be judged. The Federal Circuit has repeatedly stated:

The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification.

...

It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This court has previously stated that "[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention."

In re Fritch, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992) (*citations omitted*).

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. In re Fine, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 21 USPQ2d 1941 (Fed. Cir. 1992). In the present case, neither the references themselves nor the knowledge generally available to one of ordinary skill in the art teach or suggest combining Duffy and Schoeneberger as proposed by the Examiner. The Office Action is replete with conclusory statements regarding the alleged teachings of the prior art. Such conclusory statements are

insufficient to support an obviousness rejection. *See KSR*, 550 U.S. at 419, 82 USPQ2d at 1396; MPEP § 2143.01. The Examiner's proposed combination is therefore improper.

Accordingly, for at least the reasons identified above, claims 18 and 28-29 are believed allowable over the prior art.

Claims 19-27 and 30-37 depend cognately from independent claims 18 and 28, respectively, and add features which further remove the present invention from the prior art. Claims 18 and 28 have been previously discussed and are believed allowable. Given at least the distinctions identified above with respect to independent claims 18 and 28, dependent claims 19-27 and 30-37 are believed allowable over the prior art and a separate discussion of them will not belabored for the sake of brevity.

With respect to independent claim 38, the Office Action refers to the rejection of independent claims 18 and 28, and notes that Duffy teaches those claimed features except for detecting a reactivation of the data packet transfer network or of the first telecommunication system, and automatically switching over into a normal operating mode after the detection of the reactivation. Even though the Office Action takes official notice of switching to a normal operating mode after reactivation, independent claim 38 includes several elements beyond this exception noted in the Office Action. Independent claim 38 includes many of the same steps which are recited in independent claim 28 which, as discussed fully above, are neither disclosed nor suggested by Duffy or Schoeneberger, taken alone or in combination.

Thus, for at least the same reasons previously set forth with respect to independent claim 28, independent claim 38 is also believed allowable over the prior art.

Claims 39-40 depend cognately from independent claim 38 and add features which further remove the present invention from the prior art. Given at least the distinctions identified above with respect to independent claim 38, dependent claims 39-40 are believed allowable over the prior art and a separate discussion of them will not belabored for the sake of brevity.

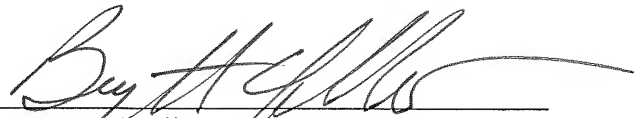
Conclusion

For at least the above-identified reasons, claims 18-40 are believed allowable over the prior art. Allowance and passage to issue are respectfully requested. Early notification to that effect is respectfully requested.

It is believed that this Response requires no fee. However, if a fee is required for any reason, the Commissioner is hereby authorized to charge Deposit Account No. 02-4800 the necessary amount.

Should any issues remain, the Examiner is invited to contact the undersigned at the number listed below to advance prosecution of the case. The Examiner is respectfully requested to direct further communications in this case to the attention of the undersigned.

Respectfully submitted,



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